

## CORNUS DRUMMONDII

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AMONG the plants collected by Drummond in Louisiana in 1832 and now preserved in the herbarium of the Royal Botanic Garden at Kew is the specimen (No. 138) upon which C. A. Meyer founded *Cornus Drummondii*.<sup>1</sup> In Hooker's account of Drummond's collections it is listed as No. 366, *C. alba*.<sup>2</sup> The plant is evidently related to *C. asperifolia* Michx. The leaves, like those of the latter species, are rather broadly ovate with acuminate tips, and harsh above with minute appressed two-parted hairs. The pubescence of their lower surfaces, however, is composed of abundant straight appressed hairs, instead of the loosely spreading woolly hairs of *C. asperifolia*. These characters are noticed by Meyer in his description: "*foliis . . . late ellipticis ovatisve acuminatis basi rotundatis, subtus tuberculatis setisque (elongatis) bipartitis adpressis scabris dense incanis . . .*" He was apparently unfamiliar with *C. asperifolia*; the one plant which he saw that might be referred to that species he placed with *C. excelsa*.

*C. asperifolia* is rather variable in the shape of its leaves and in the degree of roughness of their upper surfaces; also in the size and shape of the stones of the white drupes. In their study of *Cornus*, Coulter and Evans distinguished by its rougher leaves and shorter stones a variety, which they found to be characteristic of the western parts of the range of the species. To this variety they applied Meyer's specific epithet *Drummondii*.<sup>3</sup> *C. Drummondii*, however, as is apparent from the specimen and from Meyer's description, is quite distinct from both typical *C. asperifolia* Michx. and var. *Drummondii* Coult. & Evans.

The species or variety represented by Drummond's plant has escaped further notice. Meyer cited a specimen from Texas (*Wiedmann*). Two specimens in the herbarium of the Missouri Botanical Garden seem to be the same; one collected by *Fendler* at New Orleans in 1846, the other by *C. R. Ball* near Alexandria, Louisiana, in 1899. Collections have been recently made by *Drouet* near Columbia, Missouri, which present similar characters. Some of these specimens, however, exhibit a scantier pubescence and a somewhat smaller leaf than *C. Drummondii*, and in these respects resemble the more pubescent forms of another variable species, *C. racemosa* Lam. (*C.*

<sup>1</sup> Mem. Acad. Imp. Sci. St. Petersb. 7: 210 (1846).

<sup>2</sup> Comp. Bot. Mag. 1: 48 (1835).

<sup>3</sup> Bot. Gaz. 15: 36 (1890).



*paniculata* L'Her., *C. candidissima* of various authors, probably not Miller). The cymes and fruits of this species are quite similar to those of *C. asperifolia*, the cymes perhaps usually less ample, the stones of the drupes more globular, less inclined to be oblique and flattened. The pedicels are in general longer (2-5 mm.) than those of *C. asperifolia* (1-3 mm.). The leaves are smaller, more elliptical, and vary from glabrous to more or less pubescent on either or both surfaces with appressed two-parted hairs.

The existence of forms intermediate between the well known species of *Cornus* has long been ascribed to hybridization. The sporadic occurrence of *C. Drummondii* suggests that it may be a hybrid of the two species between which it is intermediate. Against this it must be advanced that *C. racemosa* is apparently infrequent in the regions where *C. Drummondii* has been collected. It is interesting, however, to note that the plants from this vicinity which have been referred to *C. Drummondii* were collected not far from plants of *C. racemosa*, which is rare here. It is well known that *C. racemosa* is connected by a series of intermediate forms with the more southern *C. stricta* Lam.

Several investigators have lately called attention both to the importance of hybrids in an understanding of plant populations and to the dangers of a too easy decision that intermediate forms are indeed hybrids. It is perhaps worthy of more general recognition that hybridity, in relation to taxonomy, may mean two different things. An initial cross may lead to the formation of fertile races, which may be constant, as in such genera as *Hieracium* and *Galeopsis*, or which may exhibit Mendelian segregation and give rise to a host of fertile but inconstant forms, as in certain species of *Viola*. Or the hybrid may be sterile or nearly so, and its occurrence limited to the first generation and to the proximity of the parents. It is in the latter sense that *C. Drummondii* may possibly be a hybrid. In any case, further collection should provide valuable information on its status.

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Volume 38, no. 446, including pages 53-76 and plate 407, was issued 3 February, 1936.